Wisconsin's Great Lakes Charter Fishing Industry in 2002

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This publication summarizes the findings of the Great Lakes Sea Grant Network study on the charter industry in the Great Lakes. Individual fact sheets have been developed in conjunction with the Great Lakes Fisheries Leadership Institute for the following regions: Illinois-Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin. The goal of the Great Lakes Fisheries Leadership Institute is to provide the next generation of fisheries leaders for the Great Lakes region with the skills they need to effectively interact with fisheries management agencies. This document was produced by the Ohio Sea Grant College Program as a part of the Great Lakes Fishery Leadership Institute project of the Great Lakes Sea Grant Network.

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Introduction

In the fall of 2002 and winter of 2003 the Great Lakes Sea Grant Network conducted a comprehensive survey of the charter fishing industry in the Great Lakes. The survey is an effort to provide an update on the status, characteristics and economics of the charter fishing business in the Great Lakes and is modeled after a similar survey conducted in 1994. All data reported here are for the year 2002.

Methods

The Wisconsin and the Ohio Sea Grant programs surveyed Wisconsin's charter-fishing captains in October and November of 2002 using a modified Dillman mail survey technique (Dillman 1978). Non-respondents were sent up to three reminder letters. In 2002 there were 258 licensed Wisconsin captains, this represents a decline of almost 9.5% from the 285 captains in 1994. A total of 116 captains returned surveys with usable data, a response rate of 45%. Not all respondents filled out every item in the questionnaire. Of the responding captains, 90% were based on Lake Michigan and 10% were based on Lake Superior. Over 91% of respondents indicated that Wisconsin was their home state and 9% indicated that Illinois was their home state.

Business

The typical Wisconsin charter-fishing captain in 2002 has been licensed for 12.5 years. An estimated 232 captains had their homeport on Lake Michigan and 26 captains were based on Lake Superior (**Table 1**). About 19% of captains responding did not operate a charter firm but were hired out as employees. Most businesses (94%) operate one boat, which is typically 30.6 feet long, over 19.4 years old, and powered by an inboard (75%), inboard/outdrive (17%), or outboard (7%) motor.

The average replacement cost for a Wisconsin charter vessel is $81,536, and for onboard business-related equipment is $13,790. About 20% of the respondents use a vehicle for towing their boat or other charter-related business. The average replacement cost of the vehicle is $24,640; for the trailer it is $3,333. The vehicle is used for boat towing 18% of the time and for other charter business 32% of the time.

Captains

Over 99% of the responding captains were "six-pack" operators, licensed to carry no more than six passengers. Notably, only 20% of the captains rely on the charter business as their primary source of income (**Table 2**).

Almost 43% of 113 responding captains are members of a professional charter captains association. The top three cited benefits from membership in a professional charter captains association are advertising, increased business, and sharing charters. Drug testing and industry representation to state, federal, and local authorities were also important benefits of membership in a professional charter captains association (**Table 3**).

Table 1
Ownership and Organization of Wisconsin's Charter Boat Fishing Businesses

Characteristics	Percent of Respondents	*Number of Respondents*
Business Ownership		94
Sole proprietorship	81%	76
Partnership	4%	4
Corporation	10%	9
Other	5%	5
Business Organization*		114
Owned own boat	79%	90
Leased/rented boat	3%	3
Salaried employee	2%	2
Freelance hire per trip	11%	12
Other arrangement	6%	7

* *Captains who worked as salaried employees or freelance for hire per trip are considered hired labor.*

Table 2
Reasons for Entering/Remaining in the Wisconsin Charter Fishing Business
116 Respondents were asked to check all that apply.

Reason	Percent of Respondents
Help people enjoy fishing	77%
Like the work	68%
Secondary source of income	58%
Primary income source	20%
Other	7%

Table 3
Benefits of Membership in a Wisconsin Professional Charter Boat Association
116 Respondents were asked to select the top three reasons.*

Benefit	Percent of Respondents
Advertising	33%
Increased business	28%
Sharing charters	18%
Drug testing	17%
Industry representation to state, federal, and local authorities	16%
Education on current issues and regulations	10%
Business operation ideas and advice	9%
Group insurance	5%
Get tips about fishing	4%
Other benefits	4%
Pricing information	2.6%

* *43% are members of a charter association*

Table 4
Estimated Trips and Revenues for the Wisconsin Industry*

Fish Species	Number of trips	Average No. Trips/business	Average Charge/Trip	Revenues Earned
Steelhead				
Full day	364	1.7	$388	$675
Half day	1,421	6.8	$308	$2,094
Lake trout and Salmon				
Full day	1,641	7.9	$486	$3,815
Half day	10,128	48.5	$332	$15,604
Smallmouth bass				
Full day	25	0.1	$288	$35
Half day	25	0.1	$256	$31
Walleye				
Full day	0	0	$288	0
Half day	75	.4	$238	$86
Subtotals				
Full day	2,029	9.7		$4,525
Half day	11,650	55.7		$17,815
Totals	13,679	65.5		$22,340

* *The numbers of trips are extrapolations of respondent trip rates applied to the total population of Wisconsin Great Lakes charter captains. Revenues are calculated from the average number of trips per business multiplied by the average charge per trip.*

Table 5
Services Offered by Wisconsin Charter Boat Operators

Service or Provision	Percent of Respondents: Included in Base Charter Fee	Percent of Respondents: Included for Additional Fee	Number of Respondents
Tackle	100%	0%	112
Ice	90%	1%	111
Fish Cleaning	88%	9%	110
Bait	82%	1%	88
Photos/Video of trip	42%	6%	84
Lodging/Food	14%	30%	79

Table 6
Average Annual Operating Costs for Wisconsin Boat-Owning Captains
72 Respondents

Item	Expense
Fuel/Oil	$2,562
Dockage	1,343
Labor (hired)	1,046
Advertising	1,009
Equipment repair	956
Boat storage fees	851
Miscellaneous	850
Insurance	767
Office & communications	726
Boat maintenance & repair	676
Boat repair not covered by insurance	410
License fees	251
Drug testing/Professional dues	135
Boat launch fees	39
Total Operating Costs	**$11,662**

Trips

Responding captains average 9.7 full-day and 55.7 half-day paid charter trips per year. Almost 86% of these trips are for lake trout and salmon. Applying the response data to the total population of 209 active captain's yields an estimated 13,679 charter trips of which (15%) were full day and (85%) were half-day trips (**Table 4**).

Together August and July account for almost 60% of all Lake Michigan charter trips with about 30% of all trips occurring in each month. The next busiest months on Lake Michigan are June (18% of the reported trips) and September (12% of the trips). This was followed by May with 9% of the trips, and April and October with less than 1% of the trips each. No trips were reported for March on Lake Michigan.

The busiest months on Lake Superior are August with 30% of the reported trips, July and June each with 23% of the trips, and September with 18% of the trips. This was followed by May with 4% of the trips and October with just over 1% of the trips. No trips were run on Lake Superior in March or April.

Charter fees vary according to target species, length of the charter, and services offered. The most popular trip was the half-day lake trout & salmon charter trip; its cost averaged $332 per boat (range $75 to $550). Half-day trips were defined as trips lasting less than seven hours.

Services and Provisions

Most charter businesses provided tackle, ice, fish cleaning and bait as part of their standard charter trip service. Trip photos, videos, lodging and food can also be arranged for an additional fee (**Table 5**).

Costs and Returns

For boat owning captains, the largest annual operating expenses were boat fuel, boat dockage, labor and advertising (**Table 6**). Boat loan payments are a high cash outlay but are not part of operating costs.

The average cash requirement to operate the charter firm includes the operating expenses plus the boat loan payments. Average annual boat loan payments including principal and interest are $2,438. The average annual cost to operate a Wisconsin charter firm is $14,100 for those making boat loan payments and $11,662 for those who do not. This means that the typical charter firm that owns and operates a single vessel must generate sales of either $14,100 or $11,662 just to meet the cash needed to pay the day-to-day bills to operate the charter business depending on whether or not the boat is paid off (**Table 7**).

Estimated average annual revenue is $22,340. The result is a net positive cash flow of $8,240 for firms making boat loan payments and $10,678 for firms not making boat loan payments. Firms with a positive cash flow could pay the day-to-day bills to operate the charter business from the revenues earned from chartering.

Economic costs are the costs of operating the charter firm except for the cost of a boat loan. The economic costs include operating costs ($11,662) plus capital costs. Boat loan payments are a cash requirement if a loan exists, but they are not part of the economic costs. Capital costs include depreciation of the boat, and the opportunity cost of owning a boat instead of investing in stocks, bonds, or some other enterprise.

The average annual depreciation reported by about one third of the responding captains was $5,171. Estimated replacement cost of the boat ($81,536) plus the equipment ($13,790) totals $95,326. Interest costs based on 5% of the replacement cost of the boat and equipment are $4,766. Thus capital costs (depreciation + interest) are $9,937 ($5,171 + $4,766). The economic cost to operate a typical Wisconsin charter firm is $21,599 for a firm depreciating a vessel and $16,428 for a firm with a fully depreciated boat. Any revenue in excess of these figures is the return to owner labor and management.

To provide a positive return to the operating captain for time and labor, the average Wisconsin charter business would have had to generate sales of over $21,599 or $16,428 to cover the average operating and capital costs. Depending on the depreciation and boat loan situation, the average Wisconsin charter firm operated at a net return of either $741 or $5,912 for the owner's time and labor. At an average price of $332 for a half day salmon/lake trout charter a captain would have to run 65 or 50 half day salmon/lake trout trips to cover average operating and capital costs.

In the Wisconsin Great Lakes region, Lake Michigan charter fishing firms brought in the largest estimated total sales ($4.7 million) followed by Lake Superior at $.4 million (**Table 8**). Captains on Lake Michigan had a higher average income ($20,211) and higher cost ($21,748) than Lake Superior captain's income ($18,653) and cost ($20,149). Almost 89% of all Wisconsin charter trips were run on Lake Michigan.

Table 8 is useful in that it shows that the Wisconsin Lake Michigan captains had higher sales and generally better net returns than the Wisconsin Lake Superior charter captains. However, because of missing data and differences in estimation methods one can not simply add up the Lake Michigan and Lake Superior numbers to get the total for the Wisconsin charter captains.

Promotion

Approximately 75% of Wisconsin charter customers come from 50 miles or further from the charter firm's homeport bringing nature-based tourism dollars into the community.

Captains used various methods of marketing and rated them for effectiveness on a scale of 1 (not effective) to 3 (very effective) (**Table 9**). Two advertising methods that we included in the 2002 survey that were not in the 1994 survey were a "world wide web site" and "tourism promotion agency publications/web site." Captains consider word of mouth, brochures, direct mail, and their web site as the most effective means of advertising. Almost 100% use word of mouth, just under 83% use brochures, about 67% use direct mail and 55% use a web site to advertise their charter business services.

Lake Information

About 26% of 95 responding captains utilize the Great Lakes Forecasting System web site ***(superior.eng.ohio-state.edu)*** and over 50% use the Sea Grant Coastwatch web site ***(coastwatch.msu.edu)*** for information on lake waves, water currents, surface temperatures and lake status. Those accessing these web sites use them to help make decisions, improve fish catch, find fish, plan charter trips and improve charter safety.

Industry Trends and the Future

In 2002, Wisconsin charter firms made an estimated 13,679 charter trips compared to an estimated 10, 492 trips in 1994 (Lichtkoppler 1996). The 258 charter captains generated an estimated $4.8 million in gross sales in 2002 (209 estimated charter firms x $22,340 + 49 estimated captains for hire x $2,967). This is compared to the inflation adjusted estimated of $3.5 million in gross sales generated by 285 captains in 1994 (215 firms x $14,640 + 70 captains for hire x $5,041) (Lichtkoppler 1996).

Captains were asked to select the three most important problems facing the charter industry (Table 10). The top concern is the economy, followed by boating equipment and operating costs, impacts of exotic species (zebra mussels)

Table 7
Annual Cash Flow of Average Charter Firm in Wisconsin

Income/Expenses	Businesses WITH Boat Loan Payments	Businesses WITHOUT Boat Loan Payments	No. of Respondents
Average Revenue	$22,340[1]	$22,340[1]	85
Cash Flow Needs			
Average operating costs	11,662[2]	11,662[2]	72
Boat loan payments	2,438[3]	0	48
Cash Needed	14,100	11,662	
Net Cash Flow	**$8,240**	**$10,678**	
Economic Cost			
Average operating cost	11,662	11,662	
Capital costs			
Interest Costs	4,766	4,766	
Depreciation	5,171[4]	0	24
Total Economic Cost	$21,599	$16,428	
Net Return to Operator	($741)	($5,912)	

[1] *Average revenues are based on 85 respondents.*
[2] *Average operating costs are based on 72 respondents.*
[3] *Forty-eight respondents reported boat loan payments.*
[4] *Twenty-four respondents reported depreciation.*

Table 8
Average Income, Average Economic Cost, Estimated Net Profit or Loss for Wisconsin Charter *Businesses by Body of Water on Which Their Homeport is Located*

Region/ Body of Water	Estimated Number of Businesses	Average Income per Business	Average Economic Cost per Business	Net Return (profit or loss)	Estimated Total Sales (in millions)
WI's Great Lakes Region[1] 85 Respondents	209	$22,340	$21,599[2] or $16,428	($741[2]) or $5,912	$4.8
Lake Michigan 63 Respondents	205	20,211	21,748[3] or 16,211	-1,537[3] or 4,000	4.7
Lake Superior 10 Respondents	22	18,653	20,149[4] or 19,004	-1,496[4] or 351	0.4

[1] *The combined estimates for Lakes Michigan and Superior do not equal the estimates for Wisconsin's Great Lakes Region because of missing data concerning homeport location and differences in estimation methodologies.*
[2] *Average depreciation reported by 24 respondents was $5,171*
[3] *Average depreciation reported by 22 respondents was $5,536*
[4] *Average depreciation reported by 2 respondents was $1,145*

Table 9
Methods of Advertising Charter Fishing Businesses in Wisconsin
105 Respondents

Advertising Method	Percent of Respondents	Number of Respondents	Effectiveness*
Word of mouth	100%	105	2.7
Brochures	83%	87	2.4
Direct mailings	67%	70	1.8
Website	55%	58	2.5
Signs	51%	54	2.0
Chamber of commerce publications	48%	50	2.2
Sport & travel shows	38%	40	2.2
Charter association publications	36%	38	1.9
Tourism promotion agency	34%	36	2.1
Telephone directory	32%	34	1.9
Newspaper ads	26%	27	1.7
Magazine ads	17%	18	1.7
Other	2%	2	3.0

*Scale = 1 (not effective) to 3 (very effective)

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and fish consumption advisories. With the possible exception of equipment and operating costs these concerns are largely outside the control of individual charter captains.

Most captains (64%) plan to increase the number of charter trips over the next five years (Table 11) and almost 47% plan to increase their charter fees. With about 16% of the respondents planning to quit the business, Wisconsin may expect a continuing decline in the number of charter firms. Since1994, the number of Wisconsin charter captains has declined 9.5%. However, charter firms in 2002 made more trips per firm (65.5) and generated more revenues per firm ($23,340) than in 1994 (48.8 and $13,635) and the profit motive may entice additional people to enter the industry.

Strategies for Charter Businesses

It is a good idea to occasionally examine your charter business management with an eye to improvement. Results of the 2002 Great Lakes charter captain surveys suggest that to increase future profitability, charter captains should reduce expenses, work to increase revenues and aggressively market their industry.

Refinancing your boat at a lower interest rate, holding onto a an older paid off boat in good condition or buying a newer boat at a favorable price to avoid large repair bills may be ways to reduce your expenses.

The most direct ways to increase revenues is to increase the number of charter trips that are made and by offering additional services such as executive charters, or dive charter trips. Increasing prices may or may not be possible depending on the demand and the specific market where you operate. Some captains increase the number of trips they make by following the seasonal nature of the fishery and fishing out of the "hot" ports at different times of the angling season. Half-day trips are a popular way to reduce the costs to clients and allow time for additional trips that can increase overall revenues.

Captains should carefully market their product (a nature-based tourism experience on a world class resource) and try to expand the client base to include the growing number of middle aged, nature-experience tourists with above average disposable incomes. Captains should seek ways to expand the client base by using industry-wide marketing efforts or by cooperating with local, state, and regional tourism bureaus. Captains should address the fish consumption advisory issues directly and help to educate the public on the benefits of fish consumption.

Marketing toward non-traditional customers (i.e. women and minorities) may present opportunities for increased business as does marketing executive, fly-fishing, or other special charters. Captains may also want to consider differential pricing of charters to even out charter activity. Differential pricing may help to increase charter trip activity in the spring and fall "shoulder" seasons.

Captains can continue to build on a positive professional image of the charter industry by stressing safety, effective efficient angling opportunities, a higher than average catch rate and a "world class Great Lake angling experience" in their marketing efforts.

Additionally, captains should consider membership in a professional charter captain's organization. Belonging to a professional organization allows members to work with decision makers, fishery managers, and regulators from an organized power base.

Table 10
Concerns of the Wisconsin Charter Fishing Industry
116 Respondents

Concerns	Percent of Respondents
The economy	46%
Boating equipment and operating costs	36%
Impacts of exotic species (zebra mussels)	29%
Fish consumption advisories	28%
Poor weather/climate	22%
Drawing clients	19%
Changes in forage fish populations	14%
Other problems	14%
Lack of fish/reduced abundance	12%
Illegal fishing practices	11%
Government regulations	10%
Un-sportsmanlike behavior of anglers	10%
Fisheries management	9%
Toxic contaminants	9%
Poor weather forecasting	5%
Lack of one-day nonresident fishing license	5%
Un-sportsmanlike behavior of captains	5%
Over harvest of fish stocks	5%
Lack of information on the fishery	4%
Changes in water currents	3%
Overcrowding of the fishery	2%
Avian Botulism	1%

Table 11
Five-Year Plans of Wisconsin Charter Captains
116 Respondents

Activity	Percent of Respondents
Increase of number of annual trips	64%
Increase prices	47%
No major changes	19%
Buy/operate newer boat	17%
Quit the charter business	16%
Buy/Operate bigger boat	15%
Other	10%
Hire additional first mate(s)	10%
Branch out into other fishing related businesses	10%
Expand into multi-activity and/or non-fishing charters	8%
Hire additional charter captain(s)	7%
Decrease number of annual trips	6%
Buy/Operate an additional boat(s)	5%
Buy/Own charter boat	4%
Decrease Prices	0%

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